AUTHOR INDEX, VOLUME 1

Akutsu, T., and Kantrowitz, A.: Problems of materials in mechanical heart systems, 33

Alexander, H.: see Colangelo, V. J.

Autian, J.: Toxicologic aspects of implants, 433

——: see Rosenbluth, S. A.

Barvič, M., Kliment, K., and Zavadil, M.: Biologic properties and possible uses of polymer-like sponges, 313

Bauer, S. B.: see Srinivasan, S.

Brandes, G.: see Leonard, F.

Burrowes, C. B.: see Srinivasan, S.

Campbell, C. J.: see Colangelo, V. J.

Colangelo, V. J., Greene, N. D., Kettelkamp, D. B., Alexander, H., and Campbell, C. J.: Corrosion rate measurements *in vivo*, 405

Cooper, C. W.: see Luttinger, M.

Craig, R. G., and Peyton, F. A.: Strain on the framework of a mandibular free-end saddle partial denature under load, 263

De Bakey, M. E.: see Hall, C. W.

Dressler, D. P.: see Hall, C. W.

Dusek, J.: see Hubacek, J.

Dvořák, J.: see Kočvara, S.

Eaton, J. C., Jr.: see Hill, J. T.

Eriksson, J. C., Gillberg, G., and Lagergren, H.: A new method for preparing nonthrombogenic plastic surfaces, 301

Falb, R. D., Takahashi, M. T., Grode, G. A., and Leininger, R. I.: Studies on the stability and protein absorption characteristics of heparinized polymer surfaces by radioisotope labeling techniques, 239

Farb, R. B., and Kaplan, H. M.: Antithrombogenic effect of a graphite, benzalkonium chloride, and heparin coating on a flexible polyvinyl chloride, and heparin coating on a flexible polyvinyl chloride plastic implant in the rabbit, 427

Ferguson, A. B., Jr.: see Laing, P. G.

Friedman, B. A.: see Walton, A. G.

Ghidoni, J. J.: see Hall, C. W.

Gillberg, G.: see Eriksson, J. C.

Greene, N. D.: see Colangelo, V. J.

Grode, G. A.: see Falb, R. D.

Guess, W. L.: see Rosenbluth, S. A.

Hall, C. W., Liotta, D., Ghidoni, J. J., De Bakey, M. E., and Dressler, D. P: Velour fabrics applied to medicine, 179

Hanks, G. A.: see Kulkarni, R. K.

Heiser, R. A.: see Scopp, I. W.

Herrmann, J. B., Katz, A. R., and Woodward, S. C.: Experimental anastomoses of small arteries employing alkyl-cyanoacrylates, 395

Hill, J. T., Eaton, J. C., Jr., Mouhot, H. G., and Leonard, F.: Porous plastic prostheses, 253

Hodge, E. S.: see Laing, P. G.

Hubacek, J., Kliment, K., Dusek, J., and Hubacek, Jar: Tissue reaction after implantation and *in situ* polymerization of hydrophilic gel, 387

Inou, T.: see Mori, S.

Johnson, L. B., Jr.: Confirmation of the presence of β(Ag–Hg) in dental amalgam, 415

——: X-ray diffraction evidence for the presence of β(Ag–Hg) in dental amalgam, 285

Kantrowitz, A.: see Akutsu, T.

Kaplan, H. M.: see Farb, R. B.

Katz, A. R.: see Herrmann, J. B.

Kettlekamp, D. B.: see Colangelo, V. J.

Kliment, Ch.: see Kočvara, S.

Kliment, K.: see Barvič, M.

——: see Hubacek, J.

Kočvara, S., Kliment, Ch., Kubát, J., Štol, M., Ott, Z., and Dvořák, J.: Gel–fabric prostheses of the ureter, 325

Kubát, J.: see Kočvara, S.

Kulkarni, R. K.: see Leonard, F.

——: Hanks, G. A., Pani, K. C., and Leonard, F.: The *in vivo* metabolic degradation of poly(methyl cyanoacrylate) via thiocyanate, 11

LaCourse, W. C.: see Levine, S. N.

Lagergren, H.: see Eriksson, J. C.

Laing, P. G., Ferguson, A. B., Jr., and Hodge, E. S.: Tissue reaction in rabbit muscle exposed to metallic implants, 135

Leininger, R. I.: see Falb, R. D.

Leonard, F.: see Hill, J. T.

——: see Kulkarni, R. K.

——, Kulkarni, K., Nelson, J., and Brandes, G.: Tissue adhesives and hemostasis-inducing compounds: The alkyl cyanoacrylates, 3

Levine, S. N.: Electrochemical behavior of metals as stimulus electrodes, 27

——, and LaCourse, W. C.: Materials and design consideration for a compact artificial kidney, 275

Liotta, D.: see Hall, C. W.

Lontz, J. F.: Preliminary considerations for flexural endurance testing of semicrystalline polymers for biomedical materials standards, 113

Loo, B. H.: see Lyman, D. J.

Lucas, T.: see Srinivasan, S.

Luttinger, M., and Cooper, C. W.: Improved hemodialysis membranes for the artificial kidney, 67

Lyman, D. J., and Loo, B. H.: New synthetic membranes for dialysis. IV. A copolyether–urethane membrane system, 17

Mori, S., Ota, K., Takada, M., and Inou, T.: Comparative studies of cyanoacrylate derivatives *in vivo*, 55

Mouhot, H. G.: see Hill, J. T.

Nelson, J.: see Leonard, F.

Nosé, Y.: Blood clotting problems in the artificial heart devices, 151

Ota, K.: see Mori, S.

Ott, Z.: see Kočvara, S.

Pani, K. C.: see Kulkarni, R. K.

Peyton, F. A.: see Craig, R. G.

Robel, S. B.: see Viggers, R. F.

Rosenbluth, S. A., Guess, W. L., and Autian, J.: Growth changes in mammalian cell cultures by plastic additives (effect of triethyl citrate), 197

Sauvage, L. R.: see Viggers, R. F.

Sawyer, P. N.: see Srinivasan, S.

——, and Srinivasan, S.: Metallic and plastic prosthetic devices as vascular wall substitutes: Biophysical criteria and methods for evaluation, 83

Schwartz, A.: see Walton, A. G.

Scopp, I. W., and Heiser, R. A.: Preliminary clinical trials of a new oral adhesive bandage, 371

Srinivasan, S.: see Sawyer, P. N.

——, Burrowes, C. B., Lucas, T., Bauer, S. B., and Sawyer, P. N.: Effect of varying electrolyte concentration on *in vitro* streaming potentials across canine aortae and carotid arteries, 355

Štol, M.: see Kočvara, S.

Takada, M.: see Mori, S.

Takahashi, M. T.: see Falb, R. D.

Thiele, H.: Geordnete Kristallisation. Nucleation and Mineralisation, 213

Viggers, R. F., Robel, S. B., and Sauvage, L. R.: A hydraulic figure-of-merit for heart value prostheses, 103

Walton, A. G., Friedman, B. A., and Schwartz, A.: Nucleation and mineralization of organic matrices, 337

Wesolowski, S. A.: Some problems concerning the assessment of arterial prosthetic materials, 171

Woodward, S. C.: see Herrmann, J. B.

Zavadil, M.: see Barvić, M.

SUBJECT INDEX, VOLUME 1

Adhesive bandage, oral, preliminary clinical trials of, 371
Adhesives, tissue, and hemostasis-inducing compounds, 3
Adsorption characteristics, protein, and stability of heparinized polymer surfaces by radioisotope labeling techniques, 239
β(Ag–Hg) in dental amalgam, confirmation of presence of, 415
  x-ray diffraction evidence for, 285
Alkyl cyanoacrylates, 3
  experimental anastomoses of small arteries employing, 395
Amalgam, dental, confirmation of presence of β(Ag–Hg) in, 415
  dental, x-ray diffraction evidence for presence of β(Ag–Hg) in, 285
Anastomoses, experimental, of small arteries employing alkyl cyanoacrylates, 395
Antithrombogenic effect of a graphite, benzalkonium chloride, and heparin coating on a flexible polyvinyl chloride plastic implant in the rabbit, 427
Aortae and carotid arteries, canine, *in vitro* streaming potentials across, effect of varying electrolyte concentrations on, 355
Arterial prosthetic materials, assessment of, 171
Arteries, carotid, and aortae, canine, *in vitro* streaming potentials across, effect of varying electrolyte concentrations on, 355
  small, experimental anastomoses of, employing alkyl cyanoacrylates, 395
Artificial heart devices, blood clotting problems in, 151
Artificial kidney, compact, design consideration and materials for, 275
Bandage, oral adhesive, preliminary clinical trials of, 371
Benzalkonium chloride, graphite, and heparin coating, antithrombogenic effect of, on a flexible polyvinyl chloride plastic implant in the rabbit, 427
Biologic properties and possible uses of polymer-like sponges, 313
Biophysical criteria and methods for evaluation of metallic and plastic prosthetic devices as vascular wall substitutes, 83
Blood clotting problems in artificial heart devices, 151
Canine aortae and carotid arteries, *in vitro* streaming potentials across, effect of varying electrolyte concentrations on, 355
Carotid arteries and aortae, canine, *in vitro* streaming potentials across, effect of varying electrolyte concentrations on, 355
Cell cultures, mammalian, growth changes in, by plastic additives, effect of triethyl citrate, 197
Clinical trials, preliminary, of a new oral adhesive bandage, 371
Clotting problems in artificial heart devices, 151
Compact artificial kidney, design consideration and materials for, 275
Copolyether–urethane membrane system, 17
Corrosion rate measurements *in vivo*, 405
Cultures, mammalian cell, growth changes in, by plastic additives, effect of triethyl citrate, 197

Cyanoacrylate derivatives *in vivo*, comparative studies of, 55
Degradation, metabolic, of poly(methyl cyanoacrylate) via thiocyanate *in vivo*, 11
Dental amalgam, confirmation of presence of β(Ag–Hg) in, 415
x-ray diffraction evidence for presence of β(Ag–Hg) in, 285
Denture, partial, mandibular free-end saddle, under load, strain on framework of, 263
Design consideration and materials for a compact artificial kidney, 275
Dialysis, new synthetic membranes for, 17
Diffraction evidence, x-ray, for presence of β(Ag–Hg) in dental amalgam, 285
Electrochemical behavior of metals as stimulus electrodes, 27
Electrolyte concentration, varying, effect of, on *in vitro* streaming potentials across canine aortae and carotid arteries, 355
Endurance testing, flexural, of semicrystalline polymers for biomedical materials standards, 113
Fabric–gel prostheses of the ureter, 325
Fabrics, velour, applied to medicine, 179
Figure-of-merit, hydraulic, for heart value prostheses, 103
Flexible polyvinyl chloride plastic implant in the rabbit, antithrombogenic effect of a graphite, benzalkonium chloride, and heparin coating on, 427
Flexural endurance testing of semicrystalline polymers for biomedial materials standards, 113
Framework of a mandibular free-end saddle partial denature under load, strain on, 263
Free-end saddle partial denture, mandibular, under load, strain on framework of, 263
Gel, hydrophilic, tissue reaction after implanation and *in situ* polymerization of, 387
Gel–fabric prostheses of the ureter, 325
Geordnete Kristallisation, 213
Graphite, benzalkonium chloride, and heparin coating, antithrombogenic effect of, on a flexible polyvinyl chloride plastic implant in the rabbit, 427
Growth changes in mammalian cell cultures by plastic additives, effect of triethyl citrate, 197
Heart devices, artificial, blood clotting problems in, 151
Heart systems, mechanical, problems of materials in, 33
Heart valve prostheses, hydraulic figure-of-merit for, 103
Hemodialysis membranes, improved, for artificial kidney, 67
Hemostasis-inducing compounds and tissue adhesives, 3
Heparin, graphite, benzalkonium chloride coating, antithrombogenic effect of, on a flexible polyvinyl chloride plastic implant in the rabbit, 427
Heparinized polymer surfaces, stability and protein adsorption characteristics of, by radioisotope labeling techniques, 239
Hydraulic figure-of-merit for heart valve prostheses, 103
Hydrophilic gel, tissue reaction after implantation and *in situ* polymerization of, 387
Implant, flexible polyvinyl chloride plastic, in the rabbit, antithrombogenic effect of a graphite, benzalkonium chloride, and heparin coating on, 427
Implantation and *in situ* polymerization of hydrophilic gel, tissue reaction after, 387
Implants, metallic, tissue reaction in rabbit muscle exposed to, 135
toxicologic aspects of, 435

Kidney, artificial, improved hemodialysis membranes for, 67
compact artificial, design consideration and materials for, 275
Mammalian cell cultures, growth changes in, by plastic additives, effect of triethyl citrate, 197
Mandibular free-end saddle partial denature under load, strain on framework of, 263
Matrices, organic, nucleation and mineralization of, 337
Mechanical heart systems, problems of materials in, 33
Membranes, improved hemodialysis, for artificial kidney, 67
new synthetic, for dialysis, 17
Membrane system, copolyether–urethane, 17
Metabolic degradation of poly(methyl cyanoacrylate) via thiocyanate *in vivo*, 11
Metallic implants, tissue reaction in rabbit muscle exposed to, 135
Metallic and plastic prosthetic devices as vascular wall substitutes, 83
Metals as stimulus electrodes, electrochemical behavior of, 27
Mineralisation and Nucleation, 213
of organic matrices, 337
Muscle, rabbit, exposed to metallic implants, tissue reaction in, 135
Nonthrombogenic plastic surfaces, new method for preparing, 301
Nucleation and Mineralisation, 213
of organic matrices, 337
Oral adhesive bandage, new, preliminary clinical trials of, 371
Organic matrices, nucleation and mineralization of, 337
Plastic additives, growth changes in mammalian cell cultures by, effect of triethyl citrate, 197
Plastic implant, flexible polyvinyl chloride, in the rabbit, antithrombogenic effect of a graphite, benzalkonium chloride, and heparin coating on, 427
Plastic and metallic prosthetic devices as vascular wall substitutes, 83
Plastic prostheses, porous, 253
Plastic surfaces, nonthrombogenic, new method for preparing, 301
Polymerization, *in situ*, and implantation of hydrophilic gel, tissue reaction after, 387
Polymer-like sponges, biologic properties and possible uses of, 313
Polymers, semicrystalline, for biomedical materials standards, flexural endurance testing of, 113
Polymer surfaces, heparinized, stability and protein absorption characteristics of, by radioisotope labeling techniques, 239
Poly(methyl cyanoacrylate), *in vivo* metabolic degradation of, via thiocyanate, 11
Polyvinyl chloride plastic implant, flexible, in the rabbit, antithrombogenic effect of a graphite, benzalkonium chloride, and heparin coating on, 427
Porous plastic prostheses, 253
Prostheses, gel–fabric, of the ureter, 325
heart valve, hydraulic figure-of-merit for, 103
porous plastic, 253
Prosthetic devices, metallic and plastic, as vascular wall substitutes, 83
Prosthetic materials, arterial, assessment of, 171
Protein adsorption characteristic and stability of heparinized polymer surfaces by radioisotope labeling techniques, 239
Rabbit, antithrombogenic effect of a graphite, benzalkonium chloride, and heparin coating on a flexible polyvinyl chloride plastic implant in, 427

Rabbit muscle exposed to metallic implants, tissue reaction in, 135
Radioisotope labeling techniques, stability and protein adsorption characteristics of heparinized polymer surfaces by, 239
Semicrystalline polymers for biomedical materials standards, flexural endurance testing of, 113
Sponges, polymer-like, biologic properties and possible uses of, 313
Stability and protein adsorption characteristics of heparinized polymer surfaces by radioisotope labeling techniques, 239
Stimulus electrodes, electrochemical behavior of metals as, 27
Strain on the framework of a mandibular free-end saddle partial denture under load, 263
Streaming potentials across canine aortae and carotid arteries, *in vitro*, effect of varying electrolyte concentration on, 355
Surfaces, heparinized polymer, stability and protein adsorption characteristics of, by radioisotope labeling techniques, 239
Thiocyanate, *in vivo* metabolic degradation of poly(methyl cyanoacrylate) via, 11
Tissue adhesives and hemostasis-inducing compounds, 3
Tissue reaction, after implantation and *in situ* polymerization of hydrophilic gel, 387
  in rabbit muscle exposed to metallic implants, 135
Toxicologic aspects of implants, 435
Triethyl citrate, effect of, in growth changes in mammalian cell cultures by plastic additives, 197
Ureter, gel-fabric prostheses of, 325
Urethane–copolyether membrane system, 17
Valve prostheses, heart, hydraulic figure-of-merit for, 103
Vascular wall substitutes, metallic and plastic prosthetic devices as, 83
Velour fabrics applied to medicine, 179
X-ray diffraction evidence for presence of β(Ag–Hg) in dental amalgam, 285

Journal of BIOMEDICAL MATERIALS Research

VOLUME 1 • 1967

Editor-in-Chief:

Sumner N. Levine
Stony Brook, Long Island, New York

Advisory Editorial Board:

John Autian
Memphis, Tenn.

Silas Braley
Midland, Mich.

C. W. Cooper
Columbus, Ohio

Julio C. Davila
Philadelphia, Penna.

Pierre Galletti
Atlanta, Ga.

Vincent L. Gott
Baltimore, Md.

Harry P. Gregor
New York, N. Y.

C. William Hall
Houston, Texas

B. David Halpern
Bethayres, Penna.

Charles A. Hufnagel
Washington, D. C.

Adrian Kantrowitz
Brooklyn, N. Y.

Seiji Kimoto
Tokyo

Patrick Laing
Pittsburgh, Penna.

R. I. Leininger
Columbus, Ohio

Edward F. Leonard
New York, N. Y.

Fred Leonard
Washington, D. C.

John F. Lontz
Wilmington, Del.

Donald Lyman
Menlo Park, Calif.

Maurice Marchal
Paris

Edward W. Merrill
Cambridge, Mass.

Yukihiko Nose
Cleveland, Ohio

Floyd A. Peyton
Ann Arbor, Mich.

Will R. Pierie
Santa Ana, Calif.

Edward I. Salkovitz
Pittsburgh, Penna.

Lester R. Sauvage
Seattle, Wash.

P. N. Sawyer
Brooklyn, N. Y.

I. H. Sokolic
New Brunswick, N. J.

Heinrich Thiele
Kiel

S. Weisman
New York, N. Y.

Sigmund Wesolowski
Rockville Centre, N. Y.

O. Wichterle
Prague

H. G. F. Wilsdorf
Charlottesville, Va.

Stephen C. Woodward
Washington, D. C.

Fred Zacouto
Paris

INTERSCIENCE PUBLISHERS
a division of JOHN WILEY & SONS•NEW YORK•LONDON•SYDNEY

Copyright © 1967 by John Wiley & Sons, Inc.

Statement of ownership, management, and circulation (Act of October 23, 1962; Section 4369, Title 39, United States Code)

1. Date of filing: September 22, 1967

2. Title of Publication: Journal of Biomedical Materials Research

3. Frequency of issue: Quarterly

4. Location of known office of publication: 20th and Northampton Streets, Easton, Pennsylvania 18042

5. Location of headquarters of general business offices of publisher: 605 Third Avenue, New York, New York 10016

6. The names and address of publisher, editor, and managing editor:
Publisher: Eric S. Proskauer, John Wiley & Sons, Inc., 605 Third Avenue, New York, New York 10016
Editor: Sumner N. Levine (Editor-in-Chief), State University of New York, Stony Brook, Long Island, New York
Managing Editor: None

7. Owner: John Wiley & Sons, Inc., 605 Third Avenue, New York, New York 10016
Stockholders owning or holding 1 per cent or more of total amount of John Wiley & Sons, Inc., stock as of August 29, 1967
Edward P. Hamilton, as Trustee under will of Elizabeth Hamilton, c/o Gifford, Woody, Carter and Hayes, 1 Wall St., New York, N. Y. 10005; W. Bradford Wiley and Edward P. Hamilton, as Trustees for Edward P. Hamilton Foundation, c/o John Wiley & Sons, Inc., 605 Third Avenue, New York, N. Y. 10016; W. Bradford Wiley and Francis Lobdell, Trustees of Elizabeth Wiley Hamilton Trust, c/o John Wiley & Sons, Inc., 605 Third Avenue, New York, N. Y. 10016; Cynthia W. Darby, Box 651, Bridgehampton, L. I., New York 11932; Cynthia W. Darby and Julia Wiley Gilbert, as Trustees under the will of Kate R. Q. Wiley, c/o Gifford, Woody, Carter and Hayes, 1 Wall Street, New York, N. Y. 10005; Julia Wiley Gilbert, Box 1191, Carmel, California; Edward P. Hamilton, Katonah, New York; Edward P. Hamilton and Cynthia W. Darby, as Trustees under will of William O. Wiley, c/o Gifford, Woody, Carter and Hayes, 1 Wall Street, New York, N. Y. 10005; S. M. Kolthoff, University of Minnesota, School of Chemistry, Minneapolis, Minnesota; Willy Levinger, 336 Central Park West, New York, N. Y.; Mrs. R. R. Pennywitt, 49 Bristol Place, Bay Head, New Jersey; Maurits Dekker, 511 West 232nd Street, Bronx, New York; Rozetta S. Dekker, 511 West 232nd Street, Bronx, New York; Eric S. Proskauer and Charles H. Lieb as Trustees u/a dated 11/27/62 made by Jenny R. Proskauer, 220 Central Park South, New York, N. Y.; C. R. Runyon, Jr., 130 East End Avenue, New York, N. Y.; Francis Lobdell and William J. Seawright, as Trustees for William Bradford Wiley, 2nd, Peter Booth Wiley, Deborah Elizabeth Wiley; Adele E. Windheim, 8 Dundee Road, Larchmont, New York; Reing and Company, P. O. Box 491, Church Street Station, New York, N. Y. 10015; Shaw and Company, P. O. Box 491, Church Street Station, New York, N. Y. 10015.

8. Known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities: None.

9. Paragraphs 7 and 8 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees hold stock and securities in a capacity other than that of a bona fide owner. Names and addresses of individuals who are stockholders of a corporation which itself is a stockholder or holder of bonds, mortgages or other securities of the publishing corporation have been included in paragraphs 7 and 8 when the interests of such individuals are equivalent to 1 per cent or more of the total amount of the stock or securities of the publishing corporation.

10. This item must be complete for all publications except those which do not carry advertising other than the publishers own and which are named in Sections 132.231, 132.232, and 132.233, Postal Manual (Sections 4355a, 4355b, and 4356 of Title 39, United States Code).
I certify that the statements made by me above are correct and complete:

Eric S. Proskauer
Publisher

Journal of Biomedical Materials Research

CONTENTS

Vol. 1, Issue Nos. 1–4, 1967

ISSUE NO. 1, MARCH

Editorial 1

F. LEONARD, R. K. KULKARNI, J. NELSON, and G. BRANDES: Tissue Adhesives and Hemostasis-Inducing Compounds: The Alkyl Cyanoacrylates 3

R. K. KULKARNI, G. A. HANKS, K. C. PANI, and F. LEONARD: The *in Vivo* Metabolic Degradation of Poly(methyl Cyanoacrylate) Via Thiocyanate 11

DONALD J. LYMAN and BOCK H. LOO: New Synthetic Membranes for Dialysis. IV. A Copolyether–Urethane Membrane System 17

SUMNER N. LEVINE: Electrochemical Behavior of Metals as Stimulus Electrodes 27

TETSUZO AKUTSU and ADRIAN KANTROWITZ: Problems of Materials in Mechanical Heart Systems 33

SHYUNICHI MORI, KAZUO OTA, MASAYUKI TAKADA, and TSUNAMASA INOU: Comparative Studies of Cyanoacrylate Derivatives *in Vivo* 55

M. LUTTINGER and C. W. COOPER: Improved Hemodialysis Membranes for the Artificial Kidney 67

P. N. SAWYER and S. SRINIVASAN: Metallic and Plastic Prosthetic Devices as Vascular Wall Substitutes: Biophysical Criteria and Methods for Evaluation 83

ROBERT F. VIGGERS, STEPHEN B. ROBEL, and LESTER R. SAUVAGE: A Hydraulic Figure-of-Merit for Heart Valve Prostheses 103

JOHN F. LONTZ: Preliminary Considerations for Flexural Endurance Testing of Semicrystalline Polymers for Biomedical Materials Standards 113

PATRICK G. LAING, ALBERT B. FERGUSON, JR., and EDWIN S. HODGE: Tissue Reaction in Rabbit Muscle Exposed to Metallic Implants 135

YUKIHIKO NOSÉ: Blood Clotting Problems in the Artificial Heart Devices 151

Note

SIGMUND A. WESOLOWSKI: Some Problems Concerning the Assessment of Arterial Prosthetic Materials 171

Book Reviews 175

Information for Contributors 177

Issue No. 2, June

C. William Hall, Domingo Liotta, John J. Ghidoni, Michael E. De Bakey, and Donald P. Dressler: Velour Fabrics Applied to Medicine 179
S. A. Rosenbluth, W. L. Guess, and J. Autian: Growth Changes in Mammalian Cell Cultures by Plastic Additives (Effect of Triethyl Citrate) ... 197
Heinrich Thiele: Geordnete Kristallisation. Nucleation und Mineralisation 213
R. D. Falb, M. T. Takahashi, G. A. Grode, and R. I. Leininger: Studies on the Stability and Protein Adsorption Characteristics of Heparinized Polymer Surfaces by Radioisotope Labeling Techniques 239
James T. Hill, James C. Eaton, Jr., Henry G. Mouhot, and Fred Leonard: Porous Plastic Prostheses 253
R. G. Craig and F. A. Peyton: Strain on the Framework of a Mandibular Free-End Saddle Partial Denture Under Load 263
Sumner N. Levine and William C. LaCourse: Materials and Design Consideration for a Compact Artificial Kidney 275
Lewis B. Johnson, Jr.: X-Ray Diffraction Evidence for the Presence of β(Ag–Hg) in Dental Amalgam 285

Book Review 299

Issue No. 3, September

Jan Christer Eriksson, Gunilla Gillberg, and Hans Lagergren: A New Method for Preparing Nonthrombogenic Plastic Surfaces 301
M. Barvič, K. Kliment, and M. Zavadil: Biologic Properties and Possible Uses of Polymer-Like Sponges 313
S. Kočvara, Ch. Kliment, J. Kubát, M. Štol, Z. Ott, and J. Dvořák: Gel–Fabric Prostheses of the Ureter 325
A. G. Walton, B. A. Friedman, and A. Schwartz: Nucleation and Mineralization of Organic Matrices 337
S. Srinivasan, C. B. Burrowes, T. Lucas, S. B. Bauer, and P. N. Sawyer: Effect of Varying Electrolyte Concentration on *in Vitro* Streaming Potentials Across Canine Aortae and Carotid Arteries 355

Announcement 369

Issue No. 4, December

Irwin Walter Scopp and Ralph A. Heiser: Preliminary Clinical Trials of a New Oral Adhesive Bandage 371
J. Hubacek, K. Kliment, J. Dusek, and Jar Hubacek: Tissue Reaction After Implantation and *in Situ* Polymerization of Hydrophilic Gel 387
John B. Herrmann, Abraham R. Katz, and Stephen C. Woodward: Experimental Anastomoses of Small Arteries Employing Alkyl Cyanoacrylates 395

V. J. Colangelo, N. D. Greene, D. B. Kettelkamp, H. Alexander, and C. J. Campbell: Corrosion Rate Measurements *in Vivo* 405
Lewis B. Johnson, Jr.: Confirmation of the Presence of β(Ag–Hg) in Dental Amalgam 415
Richard B. Farb and Harold M. Kaplan: Antithrombogenic Effect of a Graphite, Benzalkonium Chloride, and Heparin Coating on a Flexible Polyvinyl Chloride Plastic Implant in the Rabbit 427
John Autian: Toxicologic Aspects of Implants 433

Author Index 451
Subject Index 453
Volume Title Page i
Volume Contents iii